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Anmelder/Applicant/Demandeur/Patentinhaber/Propriétaire/Titulaire

Sanyo Electric Co., Ltd., et al

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☐ abstract

☒ title

☒ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract:

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## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.



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| DOCUMENTS CONSIDERED TO BE RELEVANT   |  |  |   |
|---|--|--|---|
| Category  | Citation of document with indication, where appropriate, of relevant passages  | Relevant to claim                                      | CLASSIFICATION OF THE APPLICATION (Int.Cl.7)                        |
| X   | US 5 593 080 A (KUROKAWA TETSUO ET AL)<br>14 January 1997 (1997-01-14)<br>* column 7, line 65 - column 8, line 11;<br>figure 7 *   | 1,5,8,11   | H05K3/12<br>H05K3/34<br>B41N1/24                                    |
| X   | PATENT ABSTRACTS OF JAPAN<br>vol. 1997, no. 01,<br>31 January 1997 (1997-01-31)<br>& JP 08 230346 A (NEC CORP),<br>10 September 1996 (1996-09-10)<br>* abstract *                    | 1,8  |   |
| X   | PATENT ABSTRACTS OF JAPAN<br>vol. 012, no. 366 (P-765),<br>30 September 1988 (1988-09-30)<br>& JP 63 115169 A (OKI ELECTRIC IND CO<br>LTD), 19 May 1988 (1988-05-19)<br>* abstract * | 1,8  |   |
| X   | PATENT ABSTRACTS OF JAPAN<br>vol. 014, no. 276 (M-0984),<br>14 June 1990 (1990-06-14)<br>-& JP 02 081689 A (TAMURA SEISAKUSHO CO<br>LTD), 22 March 1990 (1990-03-22)<br>* abstract * | 1,5,6,8,<br>11,12                                      | TECHNICAL FIELDS<br>SEARCHED (Int.Cl.7)<br><br>H05K<br>B41N<br>B23K |
| X   | PATENT ABSTRACTS OF JAPAN<br>vol. 2003, no. 05,<br>12 May 2003 (2003-05-12)<br>& JP 2003 008193 A (SHARP CORP),<br>10 January 2003 (2003-01-10)<br>* abstract *                      | 1,8  |   |
|   |  | -/--   |   |
| The present search report has been drawn up for all claims  |  |  |   |
| Place of search<br><b>Munich</b>  |  | Date of completion of the search<br><b>7 July 2004</b> | Examiner<br><b>Batev, P</b>   |
| <b>CATEGORY OF CITED DOCUMENTS</b><br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br><br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br><br>& : member of the same patent family, corresponding document |  |  |   |

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|---|---|---|--|
| Category  | Citation of document with indication, where appropriate, of relevant passages   | Relevant to claim                               | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) |
| X   | PATENT ABSTRACTS OF JAPAN<br>vol. 2000, no. 19,<br>5 June 2001 (2001-06-05)<br>-& JP 2001 039048 A (MURATA MFG CO LTD),<br>13 February 2001 (2001-02-13)<br>* abstract *                  | 1,8   |  |
| A   | WO 02/40213 A (MEDDLE ALAN LEONARD ;<br>SINGAPORE ASAHI CHEMICAL AND S (SG);<br>TECHNOLOGIE) 23 May 2002 (2002-05-23)<br>* claims 1-10 *  | 1-13  |  |
| A   | PATENT ABSTRACTS OF JAPAN<br>vol. 016, no. 259 (E-1215),<br>11 June 1992 (1992-06-11)<br>& JP 04 057390 A (HITACHI TELECOM TECHNOL<br>LTD), 25 February 1992 (1992-02-25)<br>* abstract * |   |  |
| A   | US 5 868 070 A (BARLOW STEPHEN ALLEN)<br>9 February 1999 (1999-02-09)<br>* the whole document *   |   |  |
| The present search report has been drawn up for all claims  |   |   | TECHNICAL FIELDS<br>SEARCHED (Int.Cl.7)      |
| Place of search<br>Munich   |   | Date of completion of the search<br>7 July 2004 | Examiner<br>Batev, P                         |
| <b>CATEGORY OF CITED DOCUMENTS</b><br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |   |   |  |

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